

We Claim:

1. A carrier for a catalyst for the epoxidation of an olefin which comprises at least 95% alpha alumina with a surface area of from 1.0 to 2.6 m²/g and a water absorption of from 35 to 55%, wherein the pores are distributed such that at least 5 70% of the pore volume is in the form of pores having pore diameters from 0.2 to 10 micrometers and pores with diameters between 0.2 and 10 micrometers provide a volume of at least 0.27 mL/g of the carrier.
2. A carrier according to Claim 1 in which pores with diameters less than 0.2 micrometers represent from 0 to 10% of the total pore volume.
- 10 3. A carrier according to Claim 1 in which mercury pore volume is up to 0.56 mL/g.
4. A carrier according to Claim 1 wherein the surface area is from 1.6 to 2.2 m²/g.
5. A carrier according to Claim 1 wherein the pores are distributed such that pores with pore diameters greater than 10 micrometers represent less than 20% of the total pore volume.
- 15 6. A carrier according to Claim 1 which further comprises from 0.2 to 0.8% of an amorphous silica compound.
7. A method of making a carrier for an olefin epoxidation catalyst which comprises forming a mixture comprising:
 - a) from 50 to 90 % by weight of a first particulate alpha alumina having an 20 average particle size (d₅₀) of from 10 to 90 micrometers;
 - b) from 10 to 50 % by weight, based on the total alpha alumina weight, of a second particulate alpha alumina having an average particle size (d₅₀) of from 2 to 6 micrometers;
 - c) from 2 to 5 % by weight of an alumina hydrate;
 - 25 d) from 0.2 to 0.8% of an amorphous silica compound, measured as silica; and
 - e) from 0.05 to 0.3% of an alkali metal compound measured as the alkali metal oxide;
- 30 all percentages being based on the total alpha alumina content of the mixture, and then forming the mixture into particles and firing the particles at a temperature of from 1250 to 1470°C to form the carrier.
8. A method according to Claim 6 wherein the alumina hydrate is boehmite.
9. A method according to Claim 6 wherein the mixture comprises up to 20% by weight of organic burnout material.

10. A method according to Claim 6 in which the mixture is compounded with from 10 to 25% based on the mixture weight of extrusion aids and organic burnouts and sufficient water to render the mixture extrudable, and then extruded to form pellets which are then dried and fired to produce the carrier.
- 5 11. A method according to Claim 6 in which the olefin is ethylene.